

Office Memorandum • UNITED STATES GOVERNMENT

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25X1A

TO :

DATE: 5 June 1959

FROM :

SUBJECT: Request for Information

25X1A

REF : Verbal request of
on 15 May 1959.

25X1A 1. [] requested information concerning:

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2. It is requested that [] supply the information requested
in paragraph 1.

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AVERAGE DATES AND EXTREMES OF SOWING, HEADING, AND RIPENING OF SPRING BARLEY (LOCAL VARIETIES) IN THE SOVIET UNION

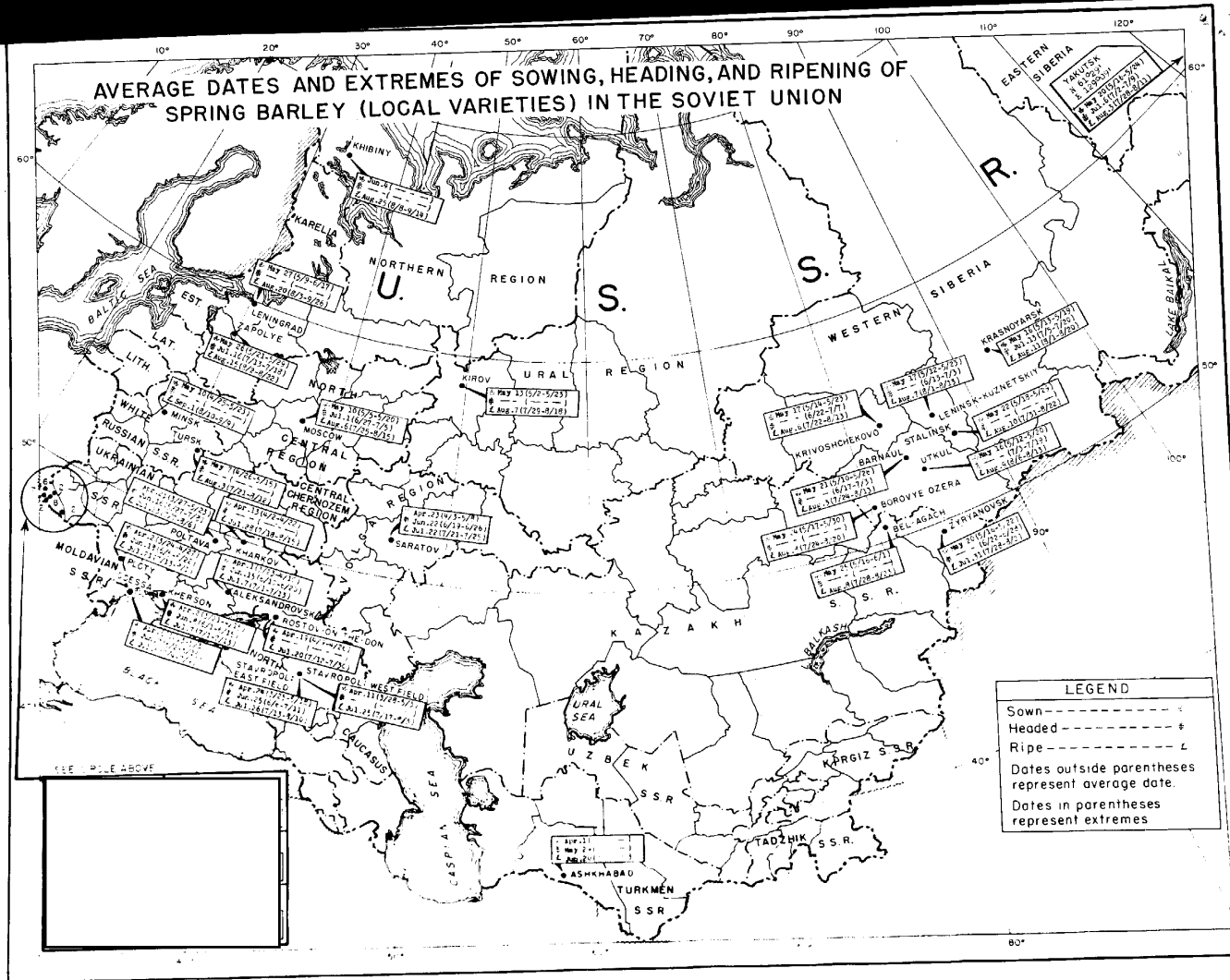


TABLE 2

AVERAGE DATES AND EXTREMES OF SOWING, HEADING, AND RIPENING OF SPRING BARLEY (LOCAL VARIETIES) AT AGRICULTURAL EXPERIMENT STATIONS IN THE SOVIET UNION

(Arranged from earliest to latest average ripening dates)

LOCATION	LAT. (N)	LONG. (E)	DATE SOWN		DATE HEADED		DATE RIPE	
			AVERAGE	EXTREMES	AVERAGE	EXTREMES	AVERAGE	EXTREMES
Ashkhabad, Turkmen S.S.R.	37°57'	58°23'	Apr. 1	(1)	May 29	(1)	June 20	(1)
*Vilok, Ukrainian S.S.R.	48°07'	22°51'	Mar. 30	Mar. 10 - Apr. 12	June 7	May 26 - June 16	July 2	June 21 - July 17
*Odessa, Ukrainian S.S.R.	46°29'	30°44'	Apr. 6	Mar. 13 - May 3	...do...	June 2 - June 15	July 6	July 4 - July 9
*Kherson, Ukrainian S.S.R.	46°38'	32°37'	Apr. 2	Mar. 21 - Apr. 15	June 8	June 1 - June 15	July 7	July 1 - July 13
Aleksandrovsk, Ukrainian S.S.R.	47°49'	35°11'	Apr. 1	Mar. 23 - Apr. 10	June 15	June 10 - June 20	...do...	...do...
*Nizhneye Domanitse, Ukrainian S.S.R.	48°38'	22°20'	Apr. 8	Mar. 24 - Apr. 22	June 4	May 25 - June 16	July 9	July 4 - July 14
Velikaya Bakta, Ukrainian S.S.R.	48°10'	22°40'	Apr. 3	Mar. 26 - Apr. 8	June 2	May 22 - June 12	July 12	July 2 - July 22
Velikiye Komyaty, Ukrainian S.S.R.	48°14'	22°58'	Apr. 10	Apr. 4 - Apr. 13	June 13	May 27 - June 25	July 13	July 9 - July 18
*Rostov-on-the-Don, R.S.F.S.R.	47°13'	39°43'	Apr. 19	Apr. 29 - Apr. 26	(1)	June 5 - June 22	July 20	July 12 - July 30
*Ploty, Moldavian S.S.R.	47°57'	29°10'	Apr. 2	Mar. 24 - Apr. 27	June 18	June 19 - June 26	July 21	July 13 - Aug. 1
*Saratov, R.S.F.S.R.	51°32'	46°01'	Apr. 23	Apr. 3 - May 8	June 22	June 18 - June 28	July 22	July 21 - July 25
*Velikiy Bychkov, Ukrainian S.S.R.	47°59'	24°02'	Apr. 17	Apr. 10 - Apr. 29	June 21	June 18 - June 28	July 23	July 13 - Aug. 1
*Poltava, Ukrainian S.S.R.	49°35'	34°34'	Apr. 23	Mar. 27 - May 23	June 16	May 27 - July 8	...do...	July 7 - Aug. 6
*Stavropol: West Field, R.S.F.S.R.	45°02'	41°54'	Apr. 11	Mar. 28 - May 3	n.a.	June 6 - July 11	July 25	July 17 - Aug. 3
*Stavropol: East Field, R.S.F.S.R.	45°02'	41°54'	Apr. 24	Mar. 25 - May 18	June 25	June 6 - July 11	July 26	July 13 - Aug. 10
*Kharkov, Ukrainian S.S.R.	49°58'	36°09'	Apr. 13	Apr. 2 - Apr. 22	n.a.	June 22 - June 28	July 28	July 18 - Aug. 15
*Zyrinovsk, Kazakh S.S.R.	49°44'	84°18'	May 20	May 16 - May 22	(1)	June 22 - June 28	July 31	July 28 - Aug. 2
*Tursk, White Russian S.S.R.	53°02'	30°13'	May 7	Apr. 26 - May 15	n.a.	June 22 - June 28	Aug. 3	July 21 - Aug. 12
*Barnaul, R.S.F.S.R.	53°20'	83°48'	May 21	May 10 - May 26	(1)	June 17 - July 3	...do...	July 24 - Aug. 13
*Yakutsk, R.S.F.S.R.	61°29'	129°09'	May 20	May 16 - May 24	July 6	July 2 - July 9	...do...	July 28 - Aug. 11
Nizhniye Vorota, Ukrainian S.S.R.	48°46'	23°06'	Apr. 16	Mar. 31 - May 2	June 24	June 20 - June 29	Aug. 4	July 27 - Aug. 12
*Krivoshchekovo, R.S.F.S.R.	54°59'	82°52'	May 17	May 14 - May 23	(1)	June 22 - July 7	Aug. 6	July 22 - Aug. 13
Moscow, R.S.F.S.R.	55°50'	37°33'	May 10	May 5 - May 20	July 1	June 27 - July 5	...do...	July 25 - Aug. 15
*Leninsk-Kuznetskiy, R.S.F.S.R.	54°43'	86°13'	May 17	May 12 - May 23	(1)	June 13 - July 3	Aug. 7	Aug. 1 - Aug. 13
*Kirov, R.S.F.S.R.	58°36'	49°41'	May 13	May 2 - May 23	(1)	(1)	...do...	July 29 - Aug. 18
*Bel-Agach, Kazakh S.S.R.	50°48'	80°44'	May 25	May 16 - June 1	(1)	(1)	Aug. 8	July 28 - Aug. 23
*Borovye Ozero, R.S.F.S.R.	51°45'	80°20'	May 24	May 17 - May 30	(1)	(1)	...do...	July 24 - Aug. 20
*Urkul, R.S.F.S.R.	52°41'	84°37'	May 16	May 12 - May 20	(1)	July 3 - July 19	Aug. 9	Aug. 6 - Aug. 13
*Stalinsk, R.S.F.S.R.	53°46'	87°11'	May 22	May 18 - May 29	(1)	(1)	Aug. 10	July 31 - Aug. 22
Krasnoyarsk, R.S.F.S.R.	56°08'	93°00'	May 16	May 13 - May 19	July 13	July 5 - July 20	Aug. 11	Aug. 1 - Aug. 20
Zapolye, R.S.F.S.R.	59°23'	29°30'	May 26	May 21 - May 29	July 16	July 13 - July 18	Aug. 15	Aug. 2 - Aug. 22
*Leningrad, R.S.F.S.R.	59°56'	30°16'	May 27	May 9 - June 17	n.a.	...	Aug. 20	Aug. 3 - Sept. 26
Khibiny, R.S.F.S.R.	67°44'	33°02'	June 4	(1)	(1)	(1)	Aug. 25	Aug. 8 - Sept. 14
*Minsk, White Russian S.S.R.	53°54'	27°33'	May 10	Apr. 25 - May 23	n.a.	...	Sept. 1	Aug. 10 - Sept. 9

Source: Based on data as shown in Tables 67 through 90 and Table 93. *Indicates stations for which day-degree summations were computed for individual years. See Tables 67 through 90.

1 Not computed because of small number of cases.
n.a. - not available.

Figure 4

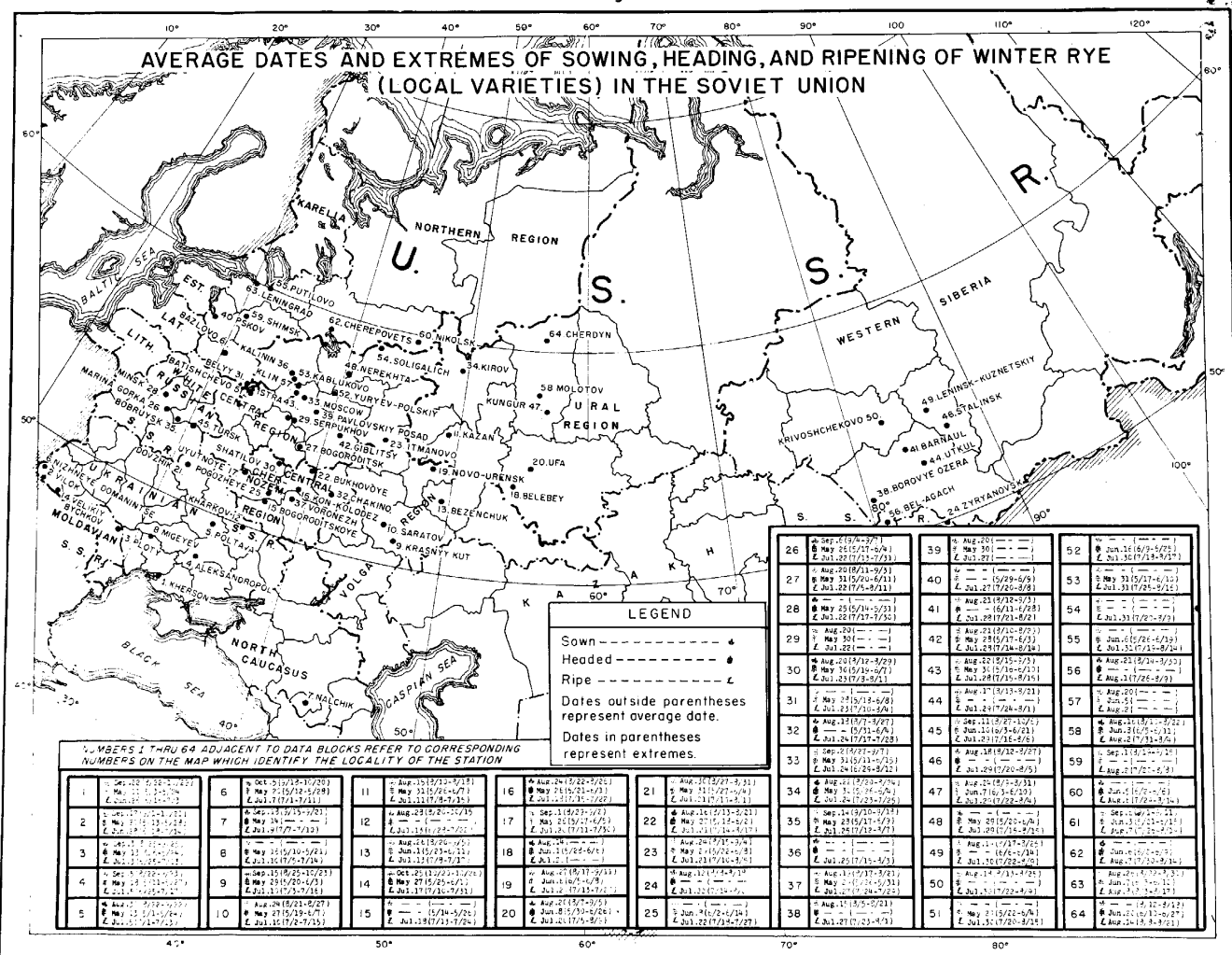


TABLE 2
AVERAGE DATES AND EXTREMES OF SOWING, HEADING, AND RIPENING OF WINTER RYE (LOCAL VARIETIES)
AT AGRICULTURAL EXPERIMENT STATIONS IN THE SOVIET UNION

(Arranged from earliest to latest average ripening dates)

LOCATION	LAT. (N)	LONG. (E)	DATE SOWN		DATE HEADED		DATE RIFE	
			AVERAGE	EXTREMES	AVERAGE	EXTREMES	AVERAGE	EXTREMES
*Kherson, Ukrainian S.S.R.	46°38'	32°37'	Sept. 22	Aug. 22 - Oct. 29	May 11	May 3 - May 24	June 26	June 16 - July 3
*Vilok, Ukrainian S.S.R.	48°07'	22°51'	Sept. 17	Sept. 1 - Oct. 21	May 20	May 13 - May 28	June 28	June 18 - July 14
*Platy, Moldavian S.S.R.	47°57'	29°10'	Sept. 3	Aug. 25 - Sept. 25	May 13	May 6 - May 24	July 2	June 25 - July 13
Aleksandropol, Ukrainian S.S.R.	48°01'	34°27'	Sept. 5	Aug. 22 - Sept. 23	May 18	May 11 - May 27	July 5	June 25 - July 17
*Poltava, Ukrainian S.S.R.	49°35'	34°34'	Aug. 30	Aug. 22 - Sept. 22	May 13	May 1 - May 24	July 1	July 1 - July 13
*Nizhneye Domanintse, Ukrainian S.S.R.	48°38'	22°20'	Oct. 5	Sept. 18 - Oct. 20	May 20	May 12 - May 28	July 7	July 1 - July 11
Nalchik, R.S.F.S.R.	43°27'	43°35'	Sept. 18	Sept. 15 - Sept. 21	May 14	n.a.	July 9	July 7 - July 10
Migeyev, Ukrainian S.S.R.	48°02'	30°57'	(1)	(1)	May 16	May 10 - May 21	July 10	July 5 - July 14
*Krasnyy Kut, R.S.F.S.R.	50°58'	46°30'	Sept. 15	Aug. 25 - Oct. 23	May 29	May 20 - June 3	July 10	July 3 - July 16
*Saratov, R.S.F.S.R.	51°32'	46°01'	Aug. 24	Aug. 21 - Aug. 27	May 27	May 19 - June 7	July 10	July 2 - July 15
*Kazan, R.S.F.S.R.	55°47'	49°08'	Aug. 15	Aug. 10 - Aug. 18	May 31	May 26 - June 7	July 11	July 8 - July 15
*Kharkov, Ukrainian S.S.R.	49°58'	36°09'	Aug. 28	Aug. 20 - Oct. 15	n.a.	July 13	June 28 - July 22	July 10 - July 31
*Bezenchuk, R.S.F.S.R.	53°00'	49°28'	Aug. 26	Aug. 20 - Sept. 5	June 1	May 23 - June 11	July 10	July 8 - July 17
*Velikiy Bychkov, Ukrainian S.S.R.	47°59'	24°02'	Oct. 25	Oct. 20 - Oct. 26	May 27	May 25 - June 1	July 17	July 10 - July 31
*Bogoroditskoye, R.S.F.S.R.	51°10'	37°21'	n.a.	---	(1)	May 14 - May 26	July 18	July 13 - July 24
Kon-Kolodez, R.S.F.S.R.	52°08'	39°10'	Aug. 24	Aug. 22 - Aug. 26	May 26	May 21 - June 1	July 18	July 15 - July 22
Uyutnoye, R.S.F.S.R.	52°04'	35°05'	Sept. 1	Aug. 29 - Sept. 2	June 1	May 17 - June 5	July 20	July 11 - July 30
Belebey, R.S.F.S.R.	53°55'	54°38'	Aug. 14	(1)	June 1	May 28 - June 6	July 20	(1)
Novo-Urensk, R.S.F.S.R.	54°25'	48°11'	Aug. 27	Aug. 17 - Sept. 11	June 6	June 5 - June 8	July 20	July 13 - July 27
Ufa, R.S.F.S.R.	54°43'	55°56'	Aug. 20	Aug. 7 - Sept. 5	June 8	May 30 - June 26	July 20	July 5 - Aug. 9
Dovzhik, Ukrainian S.S.R.	51°37'	31°01'	Aug. 30	Aug. 27 - Aug. 31	May 31	May 27 - June 4	July 21	July 10 - Aug. 1
Bukhovoye, R.S.F.S.R.	53°03'	39°58'	Aug. 16	Aug. 13 - Aug. 21	May 27	May 18 - June 2	July 21	July 14 - Aug. 17
Itmenovo, R.S.F.S.R.	55°08'	44°45'	Aug. 24	Aug. 15 - Sept. 4	May 29	May 22 - June 8	July 21	July 10 - Aug. 5
*Zyranovsk, Kazakh S.S.R.	49°44'	84°18'	Aug. 12	Aug. 8 - Aug. 18	(1)	(1)	July 22	July 14 - Aug. 2
Pogozheye, R.S.F.S.R.	51°36'	37°16'	(1)	(1)	June 8	June 2 - June 14	July 22	July 18 - July 27
Marina Gorka, White Russian S.S.R.	53°26'	28°18'	Sept. 6	Sept. 4 - Sept. 7	May 26	May 17 - June 4	July 22	July 13 - July 31
*Bogoroditsk, R.S.F.S.R.	53°47'	38°07'	Aug. 20	Aug. 11 - Sept. 3	May 31	May 20 - June 11	July 22	July 5 - Aug. 11
*Minsk, White Russian S.S.R.	53°54'	27°33'	n.a.	---	May 25	May 14 - May 31	July 22	July 17 - July 30
Serpukhov, R.S.F.S.R.	54°54'	37°24'	Aug. 20	n.a.	May 30	n.a.	July 22	n.a.
*Shatilov, R.S.F.S.R.	53°00'	37°23'	Aug. 20	Aug. 12 - Aug. 29	May 28	May 19 - June 7	July 22	July 8 - Aug. 1
Belyy, R.S.F.S.R.	55°50'	32°55'	n.a.	---	May 28	May 18 - June 8	July 22	July 10 - Aug. 4
*Chakino, R.S.F.S.R.	52°14'	41°38'	Aug. 18	Aug. 7 - Aug. 27	(1)	May 31 - June 4	July 24	July 17 - July 28
*Moscow, R.S.F.S.R.	55°50'	37°33'	Sept. 2	Aug. 27 - Sept. 7	May 31	May 11 - June 15	July 24	June 29 - Aug. 12
Kirov, R.S.F.S.R.	58°36'	49°41'	Aug. 22	Aug. 20 - Aug. 24	May 30	May 26 - June 4	July 25	July 23 - July 25
Bobruysk, White Russian S.S.R.	53°08'	29°15'	Sept. 14	Sept. 10 - Sept. 18	May 28	May 17 - June 9	July 25	July 12 - Aug. 7
Kalinin, R.S.F.S.R.	56°50'	35°55'	n.a.	---	n.a.	---	July 25	July 15 - Aug. 3
Voronezh, R.S.F.S.R.	51°36'	38°59'	Aug. 19	Aug. 17 - Aug. 21	May 29	May 26 - May 31	July 27	July 24 - July 29
Borovoye Ozero, R.S.F.S.R.	51°45'	80°20'	Aug. 15	Aug. 5 - Aug. 21	n.a.	---	July 27	July 23 - Aug. 1
Pavlovskiy Posad, R.S.F.S.R.	55°47'	38°40'	Aug. 20	n.a.	May 30	n.a.	July 27	n.a.
*Pskov, R.S.F.S.R.	57°33'	28°19'	n.a.	---	(1)	May 29 - June 9	July 28	July 20 - Aug. 8
Barnaul, R.S.F.S.R.	53°20'	83°48'	Aug. 21	Aug. 12 - Sept. 3	(1)	June 11 - June 28	July 28	July 21 - Aug. 2
Gibitsy, T.S.F.S.R.	54°58'	41°05'	Aug. 22	Aug. 10 - Aug. 29	May 28	May 17 - June 3	July 28	July 14 - Aug. 14
Istra, R.S.F.S.R.	55°55'	36°55'	Aug. 22	Aug. 15 - Sept. 3	May 30	May 16 - June 10	July 28	July 15 - Aug. 15
*Utkul, R.S.F.S.R.	52°41'	84°37'	Aug. 17	Aug. 13 - Aug. 21	(1)	(1)	July 29	July 24 - Aug. 1
*Tursk, White Russian S.S.R.	53°02'	30°13'	Sept. 11	Aug. 27 - Oct. 6	June 10	June 3 - June 21	July 29	July 16 - Aug. 6
*Stalinsk, R.S.F.S.R.	53°46'	87°11'	Aug. 18	Aug. 12 - Aug. 27	(1)	(1)	July 29	July 20 - Aug. 5
Kungur, R.S.F.S.R.	57°25'	56°56'	Aug. 24	Aug. 9 - Aug. 31	June 7	June 3 - June 10	July 29	July 22 - Aug. 4
Nerekhta, R.S.F.S.R.	57°28'	40°35'	n.a.	---	May 29	May 20 - June 4	July 29	July 15 - Aug. 15
*Leninsk-Kuznetskiy, R.S.F.S.R.	54°43'	86°13'	Aug. 19	Aug. 17 - Aug. 25	(1)	June 6 - June 14	July 30	July 22 - Aug. 9
*Krivoshchekovo, R.S.F.S.R.	54°59'	82°52'	Aug. 18	Aug. 13 - Aug. 25	(1)	(1)	July 30	July 22 - Aug. 9
*Batishchevo, R.S.F.S.R.	55°12'	33°23'	n.a.	---	May 29	May 22 - June 4	July 30	July 20 - Aug. 15
Yuryev-Polskiy, R.S.F.S.R.	56°30'	39°40'	n.a.	---	June 16	June 9 - June 25	July 30	July 18 - Aug. 17
Kablukovo, R.S.F.S.R.	56°50'	36°12'	n.a.	---	May 31	May 17 - June 10	July 31	July 25 - Aug. 16
Saligolich, R.S.F.S.R.	59°05'	42°17'	n.a.	---	n.a.	---	July 31	July 20 - Aug. 9
*Putilovo, R.S.F.S.R.	59°52'	31°25'	n.a.	---	June 6	May 26 - June 19	Aug. 1	July 19 - Aug. 14
*Bel-Agech, Kazakh S.S.R.	50°48'	80°44'	Aug. 21	Aug. 14 - Aug. 30	n.a.	---	Aug. 1	July 26 - Aug. 9
Klin, R.S.F.S.R.	56°21'	36°45'	Aug. 20	n.a.	June 5	n.a.	Aug. 2	n.a.
Molotov, R.S.F.S.R.	58°01'	56°16'	Aug. 16	Aug. 10 - Aug. 22	June 8	June 5 - June 11	Aug. 2	July 31 - Aug. 4
*Shimsk, R.S.F.S.R.	58°12'	30°40'	Sept. 1	Aug. 19 - Sept. 15	(1)	(1)	Aug. 2	July 20 - Aug. 8
*Nikolsk, R.S.F.S.R.	59°32'	45°27'	n.a.	---	June 5	June 2 - June 6	Aug. 6	July 29 - Aug. 14
Bazlovo, R.S.F.S.R.	56°30'	30°01'	Sept. 6	Sept. 1 - Sept. 11	June 3	May 21 - June 15	Aug. 7	July 26 - Aug. 19
Cherepovets, R.S.F.S.R.	59°07'	37°56'	n.a.	---	June 6	June 2 - June 9	Aug. 7	July 30 - Aug. 14
Leningrad, R.S.F.S.R.	59°56'	30°16'	Aug. 26	Aug. 22 - Aug. 31	June 7	June 3 - June 10	Aug. 8	Aug. 3 - Aug. 17
*Cherdyn, R.S.F.S.R.	60°24'	56°31'	Aug. 12	Aug. 12 - Aug. 18	June 20	June 10 - June 27	Aug. 14	Aug. 8 - Aug. 21

Source: Based on data as shown in Tables 22 through 52 and Table 55, and an additional data of agricultural experiment stations in the Soviet Union between 1914 and 1941, with an over-all average of 6 years of data. *Indicates stations for which day-degree summations were computed for individual years. See Tables 22 through 52.

Not computed because of small number of cases.

n.a. - not available.

Figure 15

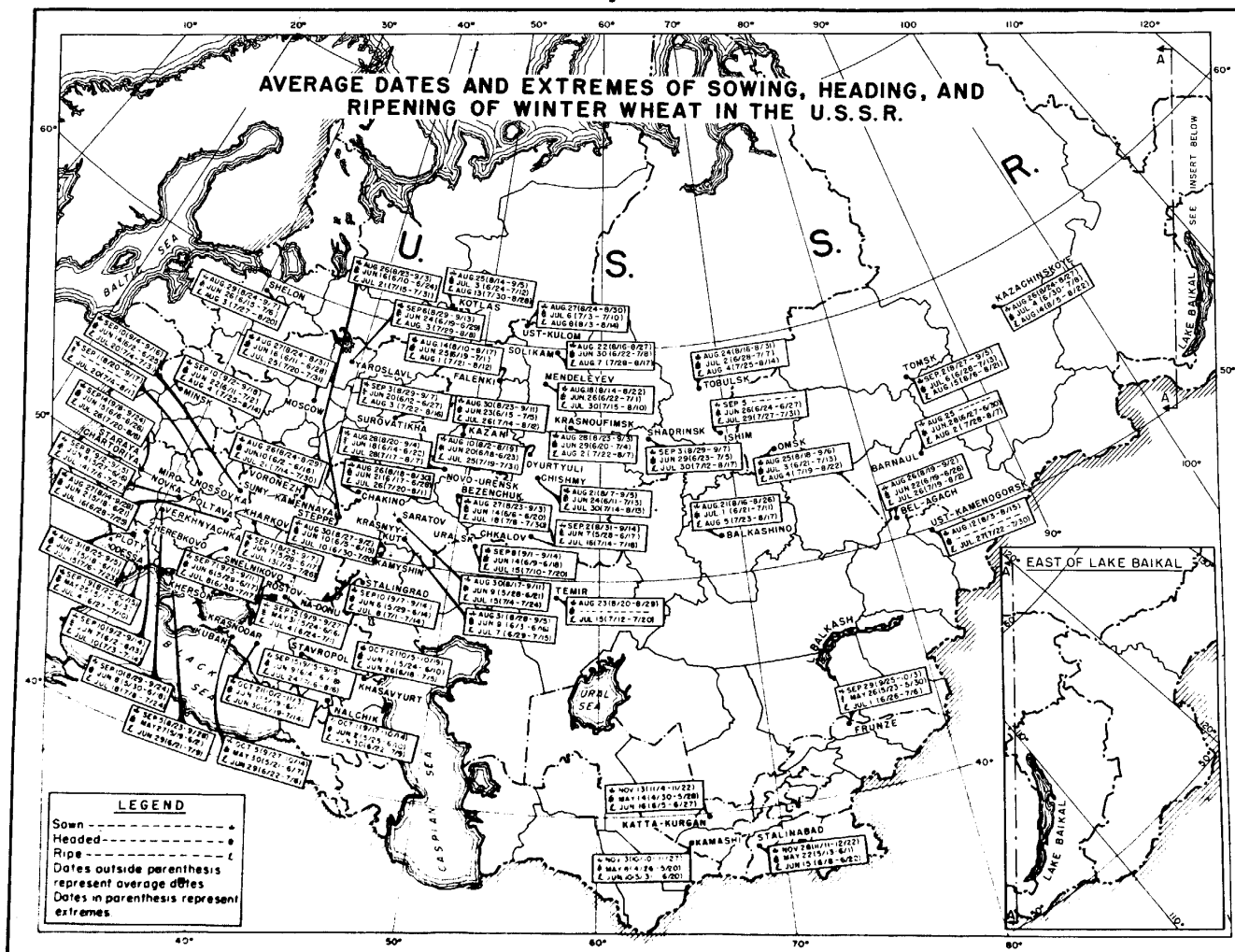


TABLE 2
AVERAGE DATES AND EXTREMES OF SOWING, HEADING, AND RIPENING OF WINTER WHEAT*
AT AGRICULTURAL EXPERIMENT STATIONS IN THE SOVIET UNION
 (Arranged from earliest to latest average ripening dates)

LOCATION	LAT. (N)	LONG. (E)	DATE SOWN		DATE HEADED		DATE RIPE	
			AVERAGE	EXTREMES	AVERAGE	EXTREMES	AVERAGE	EXTREMES
Ashtanabad, Turkmen S.S.R.	37° 57'	58° 23'	n.a.	—	n.a.	—	June 6	June 5—June 7
Kamashi, Uzbek S.S.R.	38° 51'	65° 23'	Nov. 3	Oct. 10—Nov. 24	May 6	Apr. 26—May 20	June 10	May 31—June 20
Krasnovodopadsk, Uzbek S.S.R.	40° 57'	69° 31'	Nov. 13	Nov. 9—Nov. 17	May 18	May 8—May 28	June 12	June 8—June 17
Stalinabad, Tadzhik S.S.R.	38° 30'	68° 45'	Nov. 28	Nov. 11—Dec. 22	May 22	May 13—June 1	June 15	June 8—June 22
Katta-Kurgan, Uzbek S.S.R.	39° 55'	66° 15'	Nov. 13	Nov. 4—Nov. 22	May 14	Apr. 30—May 28	June 16	June 5—June 27
Milyutin, Uzbek S.S.R.	40° 02'	67° 36'	Nov. 5	Oct. 28—Nov. 13	May 25	May 16—June 3	June 22	June 16—June 29
Khasavyurt, R.S.F.S.R.	43° 24'	46° 10'	Oct. 12	Oct. 5—Oct. 19	June 1	May 24—June 10	June 26	June 18—July 5
Kuban, R.S.F.S.R.	45° 00'	37° 30'	Oct. 5	Sept. 27—Oct. 14	May 30	May 21—June 7	June 29	June 22—July 6
*Kherson, Ukrainian S.S.R.	46° 38'	32° 37'	Sept. 5	Aug. 23—Sept. 28	May 27	May 19—June 2	...do...	June 21—July 9
Nalchik, R.S.F.S.R.	43° 34'	44° 04'	Oct. 1	Sept. 17—Oct. 14	June 2	May 25—June 10	June 30	June 22—July 9
*Krasnodar, R.S.F.S.R.	45° 02'	38° 56'	Oct. 21	Oct. 2—Nov. 3	June 1	May 19—June 11	...do...	June 19—July 14
Budennovsk, R.S.F.S.R.	44° 46'	44° 12'	Oct. 2	Sept. 27—Oct. 6	May 30	May 21—June 7	...do...	June 21—July 10
Frunze, Kirgiz S.S.R. ²	42° 54'	74° 36'	Sept. 29	Sept. 25—Oct. 3	May 26	May 23—May 30	July 1	June 26—July 6
Krasnogvardeyskoye, R.S.F.S.R.	45° 30'	34° 18'	Oct. 13	Sept. 24—Nov. 3	...do...	May 15—June 7	...do...	June 17—July 15
*Odessa, Ukrainian S.S.R.	46° 29'	30° 44'	Sept. 19	Aug. 20—Oct. 15	May 25	May 17—June 3	July 4	June 27—July 10
*Rostov-Na-Donu, R.S.F.S.R.	47° 13'	39° 43'	Sept. 15	Sept. 9—Sept. 27	May 31	May 24—June 16	...do...	June 24—July 1
*Krasnyy Kut, R.S.F.S.R.	50° 58'	46° 30'	Aug. 31	Aug. 28—Sept. 5	June 9	June 3—June 16	July 7	June 29—July 15
Alma-Ata, Kazakh S.S.R.	43° 15'	76° 55'	Sept. 19	Sept. 1—Oct. 10	June 6	May 31—June 8	July 8	July 5—July 10
*Sinelnikovo, Ukrainian S.S.R.	48° 21'	35° 26'	Sept. 7	Sept. 3—Sept. 11	...do...	May 29—June 17	...do...	June 30—July 17
Stalingrad, R.S.F.S.R.	48° 42'	44° 31'	Sept. 10	Sept. 7—Sept. 14	...do...	May 29—June 14	...do...	July 1—July 14
Tselinna, R.S.F.S.R.	46° 25'	41° 00'	Sept. 24	Sept. 17—Oct. 1	June 3	May 27—June 9	July 10	July 2—July 17
*Zharebkovo, Ukrainian S.S.R.	47° 51'	29° 53'	Sept. 10	Sept. 2—Sept. 14	June 7	June 2—June 13	...do...	July 3—July 14
*Kamyshin, R.S.F.S.R.	50° 02'	45° 07'	Aug. 30	Aug. 27—Sept. 2	June 10	June 5—June 15	...do...	June 30—July 20
*Kharkov, Ukrainian S.S.R.	49° 58'	36° 09'	Sept. 1	Aug. 25—Sept. 7	June 7	May 28—June 17	July 13	July 5—July 26
Artemovsk, Ukrainian S.S.R.	48° 35'	38° 02'	Sept. 18	Sept. 7—Sept. 28	June 14	June 7—June 21	July 14	July 6—July 22
*Mironovka, Ukrainian S.S.R.	49° 40'	31° 00'	Sept. 8	Sept. 2—Sept. 15	June 4	May 27—June 16	...do...	July 6—July 27
Gorskiy, R.S.F.S.R.	43° 15'	44° 50'	Oct. 20	Oct. 11—Oct. 29	June 12	May 30—June 25	July 15	July 3—July 27
*Ploty, Moldavian S.S.R.	47° 57'	29° 10'	Aug. 31	Aug. 25—Sept. 5	June 1	May 18—June 11	...do...	July 6—July 23
Temir, Kazakh S.S.R.	49° 06'	57° 10'	Aug. 23	Aug. 20—Aug. 29	n.a.	—	...do...	July 12—July 20
Uralsk, Kazakh S.S.R.	51° 12'	51° 21'	Sept. 8	Sept. 1—Sept. 14	June 14	June 9—June 18	...do...	July 10—July 20
*Saratov, R.S.F.S.R.	51° 32'	46° 01'	Aug. 30	Aug. 17—Sept. 11	June 9	May 28—June 21	...do...	July 4—July 24
*Poltava, Ukrainian S.S.R.	49° 35'	34° 34'	Aug. 27	Aug. 14—Sept. 28	June 2	May 18—June 21	July 16	June 28—July 25
Chkalov, R.S.F.S.R.	51° 45'	55° 06'	Sept. 2	Aug. 31—Sept. 14	June 7	May 28—June 17	...do...	July 14—July 18
Shterovka, Ukrainian S.S.R.	48° 03'	38° 55'	Sept. 18	Sept. 14—Sept. 20	June 18	June 8—June 29	July 17	July 8—July 26
*Verkhnyachka, Ukrainian S.S.R.	48° 49'	30° 03'	Sept. 10	Aug. 29—Sept. 24	June 8	May 30—June 18	July 18	July 8—July 24
*Bezenchuk, R.S.F.S.R.	53° 00'	49° 28'	Aug. 27	Aug. 23—Sept. 3	June 14	June 6—June 20	...do...	July 8—July 30
*Sumy, Ukrainian S.S.R.	50° 53'	34° 43'	Sept. 10	Sept. 4—Sept. 16	...do...	June 2—June 25	July 20	July 4—July 31
*Nossovka, Ukrainian S.S.R.	50° 56'	31° 25'	Sept. 1	Aug. 20—Sept. 17	n.a.	—	...do...	July 4—Aug. 1
*Kamennaya Steppe, R.S.F.S.R.	51° 03'	40° 42'	Aug. 26	Aug. 23—Sept. 3	June 16	June 10—June 24	July 21	July 15—July 31

*Kamennaya, Ukrainian S.S.R.	48° 43'	38° 55'	Sept. 10	Sept. 14	Sept. 20	June 18	June 20	June 26	July 14
*Verkhnyaya, Ukrainian S.S.R.	48° 49'	30° 03'	Sept. 10	Aug. 29	Sept. 24	June 4	June 19	June 26	July 14
*Belomorsk, R.S.F.S.R.	51° 00'	49° 28'	Aug. 27	Aug. 24	Sept. 1	June 14	June 19	June 26	do
*Simy, Ukrainian S.S.R.	50° 55'	44° 43'	Sept. 10	Sept. 4	Sept. 16	do	June 20	June 26	July 20
*Noksoyka, Ukrainian S.S.R.	50° 56'	31° 25'	Sept. 1	Aug. 20	Sept. 17	do	do	do	July 4
*Kamennaya, Steppe, R.S.F.S.R.	51° 00'	40° 49'	Aug. 20	Aug. 20	Sept. 1	June 10	June 10	June 24	July 21
*Voronezh, R.S.F.S.R.	51° 36'	38° 59'	Aug. 26	Aug. 24—Aug. 29	June 10	June 2—June 16	July 21	July 14—July 30	
*Stavropol, R.S.F.S.R.	45° 02'	41° 54'	Sept. 15	n.a.	June 9	June 4—June 18	July 24	July 16—Aug. 6	
Novozybkov, R.S.F.S.R.	52° 32'	31° 56'	Sept. 13	Aug. 29—Sept. 28	June 20	June 10—June 30	...do...	July 14—Aug. 3	
Meleuz, R.S.F.S.R.	52° 58'	55° 55'	Sept. 5	Aug. 30—Sept. 10	June 28	June 19—July 8	...do...	July 10—Aug. 6	
*Moscow, R.S.F.S.R.	55° 50'	37° 33'	Aug. 27	Aug. 24—Aug. 31	June 16	June 11—June 28	July 25	July 20—July 31	
Dyurtyuli, R.S.F.S.R.	55° 29'	54° 54'	Aug. 10	Aug. 2—Aug. 19	June 20	June 18—June 23	...do...	July 19—July 31	
*Staraya Chartoriya, Ukrainian S.S.R.	50° 00'	27° 42'	Sept. 14	Sept. 8—Sept. 24	June 15	June 6—June 26	July 26	July 20—Aug. 8	
Bel-Agach, Kazakh S.S.R.	50° 48'	80° 44'	Aug. 26	Aug. 19—Sept. 2	June 22	June 19—June 26	...do...	July 19—Aug. 2	
*Chakino, R.S.F.S.R.	52° 14'	41° 38'	...do...	Aug. 18—Aug. 30	June 21	June 17—June 28	...do...	July 20—Aug. 1	
*Kazan, R.S.F.S.R.	55° 47'	49° 08'	Aug. 30	Aug. 23—Sept. 11	June 23	June 15—July 5	...do...	July 14—Aug. 12	
*Ust-Kamenogorsk, Kazakh S.S.R.	49° 45'	82° 41'	Aug. 12	Aug. 3—Aug. 15	n.a.	—	July 27	July 22—July 30	
Novo-Urensk, R.S.F.S.R.	54° 25'	48° 11'	Aug. 28	Aug. 20—Sept. 4	June 18	June 14—June 22	July 28	July 17—Aug. 7	
Bugulma, R.S.F.S.R.	54° 32'	52° 48'	Aug. 25	Aug. 24—Aug. 26	June 26	June 22—July 1	...do...	July 13—Aug. 11	
Ishim, R.S.F.S.R.	56° 06'	69° 28'	Sept. 5	n.a.	...do...	June 24—June 27	July 29	July 27—July 31	
Chishmy, R.S.F.S.R.	54° 34'	55° 22'	Aug. 26	Aug. 7—Sept. 5	June 24	June 11—July 13	July 30	July 14—Aug. 13	
Shadrinsk, R.S.F.S.R.	56° 05'	63° 38'	Sept. 3	Aug. 29—Sept. 7	June 29	June 23—July 5	...do...	July 12—Aug. 17	
Mendeleyev, R.S.F.S.R.	58° 20'	55° 10'	Aug. 18	Aug. 14—Aug. 22	June 26	June 22—July 1	...do...	July 15—Aug. 10	
Anuchino, R.S.F.S.R.	53° 46'	44° 58'	Aug. 25	Aug. 17—Sept. 2	June 22	June 12—July 2	Aug. 1	July 18—Aug. 14	
Falenki, R.S.F.S.R.	58° 22'	51° 35'	Aug. 14	Aug. 10—Aug. 17	June 25	June 19—July 1	...do...	July 21—Aug. 12	
Barnaul, R.S.F.S.R.	53° 20'	83° 48'	Aug. 25	n.a.	June 28	June 27—June 30	Aug. 2	July 28—Aug. 7	
*Krasnoufimsk, R.S.F.S.R.	56° 38'	57° 42'	Aug. 28	Aug. 23—Sept. 3	June 29	June 20—July 4	...do...	July 22—Aug. 7	
Surovatikha, R.S.F.S.R.	55° 46'	43° 54'	Sept. 3	Aug. 29—Sept. 7	June 20	June 12—June 27	Aug. 3	July 22—Aug. 16	
Yaroslavl, R.S.F.S.R.	57° 50'	39° 20'	Sept. 6	Aug. 29—Sept. 13	June 24	June 19—June 29	...do...	July 29—Aug. 8	
*Shelon, R.S.F.S.R.	59° 25'	30° 15'	Aug. 29	Aug. 24—Sept. 7	June 26	June 15—July 6	...do...	July 27—Aug. 20	
Minsk, White Russian S.S.R.	53° 54'	27° 33'	Sept. 10	Sept. 2—Sept. 18	June 22	June 11—July 2	Aug. 4	July 25—Aug. 14	
*Omsk, R.S.F.S.R.	54° 58'	73° 20'	Aug. 25	Aug. 18—Sept. 6	July 3	June 21—July 13	...do...	July 19—Aug. 22	
Tobolsk, R.S.F.S.R.	58° 12'	68° 14'	Aug. 24	Aug. 16—Aug. 31	July 2	June 28—July 7	...do...	July 25—Aug. 14	
Balkashino, Kazakh S.S.R.	52° 31'	68° 46'	Aug. 21	Aug. 16—Aug. 26	July 1	June 21—July 11	Aug. 5	July 23—Aug. 17	
Shatilov, R.S.F.S.R.	53° 00'	37° 23'	Sept. 3	Aug. 26—Sept. 11	June 30	June 14—July 15	...do...	July 19—Aug. 21	
Solikam, R.S.F.S.R.	59° 50'	56° 10'	Aug. 22	Aug. 16—Aug. 27	...do...	June 22—July 8	Aug. 7	July 28—Aug. 17	
Gatchina, R.S.F.S.R.	59° 34'	30° 07'	Aug. 29	n.a.	June 28	n.a.	Aug. 8	n.a.	
Ust-Kulom, R.S.F.S.R.	61° 40'	53° 10'	Aug. 27	Aug. 24—Aug. 30	July 6	July 3—July 10	...do...	Aug. 3—Aug. 14	
Tikhvin, R.S.F.S.R.	59° 40'	34° 15'	Aug. 26	n.a.	June 30	n.a.	Aug. 10	n.a.	
Podporozhye, R.S.F.S.R.	60° 40'	34° 30'	Aug. 29	n.a.	June 27	n.a.	Aug. 12	n.a.	
Kotlas, R.S.F.S.R.	61° 16'	46° 35'	Aug. 25	Aug. 14—Sept. 5	July 3	June 24—July 12	Aug. 13	July 30—Aug. 28	
Kazachinskoye, R.S.F.S.R.	57° 41'	93° 18'	Aug. 26	Aug. 24—Aug. 27	July 4	June 30—July 8	Aug. 14	Aug. 5—Aug. 20	
*Tomsk, R.S.F.S.R.	56° 26'	84° 58'	Sept. 2	Aug. 27—Sept. 5	July 6	June 28—July 13	Aug. 15	Aug. 6—Aug. 21	

Source: Based on data as shown in Tables 24 to 32 incl. and additional data of agricultural experiment stations of the Soviet Union between 1898 and 1952, with an over-all average of 5 years for each station. *Indicates stations for which day-degree summations were computed. See Tables 24 to 32 incl.

1 Data for local varieties of wheat.

2 Irrigated.

n.a.—not available.

Figure 18

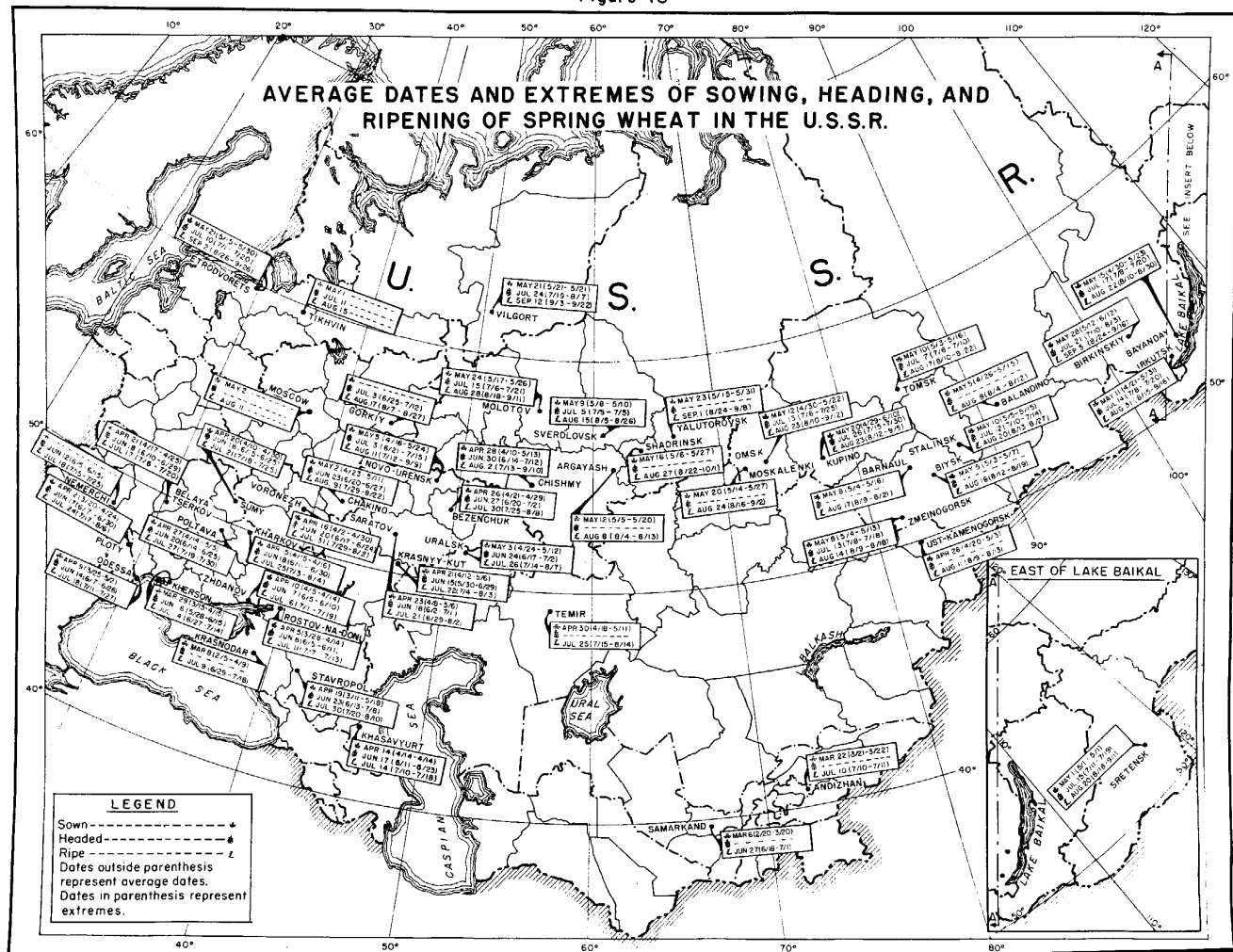


TABLE 5

AVERAGE DATES AND EXTREMES OF SOWING, HEADING, AND RIPENING OF SPRING WHEAT¹
AT AGRICULTURAL EXPERIMENT STATIONS IN THE SOVIET UNION

(Arranged from earliest to latest average ripening dates)

LOCATION	LAT. (N)	LONG. (E)	DATE SOWN		DATE HEADED		DATE RIFE	
			AVERAGE	EXTREMES	AVERAGE	EXTREMES	AVERAGE	EXTREMES
*Samarkand, Uzbek S.S.R.	39° 39'	66° 57'	Mar. 6	Feb. 20—Mar. 20	n.a.	—	June 27	June 18—July 1
*Kherson, Ukrainian S.S.R.	46° 38'	32° 37'	Mar. 29	Mar. 15—Apr. 15	June 6	May 28—June 15	July 4	June 27—July 14
Zhdanov, Ukrainian S.S.R.	47° 06'	37° 35'	Apr. 10	Apr. 5—Apr. 14	June 7	June 5—June 10	July 6	July 1—July 19
*Krasnodar, R.S.F.S.R.	45° 02'	38° 56'	Mar. 8	Feb. 5—Apr. 9	n.a.	—	July 9	June 29—July 18
Andizhan, Uzbek S.S.R.	40° 45'	72° 22'	Mar. 22	n.a.	n.a.	—	July 10	n.a.
Rostov-Na-Donu, R.S.F.S.R.	47° 13'	39° 43'	Apr. 5	Mar. 28—Apr. 14	June 8	June 5—June 11	July 11	July 7—July 13
Yeysk, R.S.F.S.R.	46° 40'	38° 16'	Apr. 9	Mar. 27—Apr. 21	June 12	June 4—June 19	July 12	July 4—July 20
Persiyankovka, R.S.F.S.R.	47° 32'	40° 07'	Apr. 13	Apr. 10—Apr. 16	...do...	June 9—June 14	...do...	July 9—July 16
Kirovograd, Ukrainian S.S.R.	48° 31'	32° 17'	Apr. 5	Apr. 1—Apr. 9	June 11	June 10—June 19	...do...	July 9—July 19
Milyutinskaya, R.S.F.S.R.	48° 37'	41° 41'	Apr. 17	n.a.	June 8	n.a.	July 13	n.a.
Starobelsk, Ukrainian S.S.R.	49° 16'	38° 56'	Apr. 24	Apr. 14—May 5	June 12	June 5—June 25	...do...	July 8—July 21
Mirgorod, Ukrainian S.S.R.	49° 58'	33° 37'	n.a.	n.a.	June 15	n.a.	...do...	July 5—July 19
Khasavyurt, R.S.F.S.R.	43° 24'	46° 10'	Apr. 14	n.a.	June 17	June 11—June 23	July 14	July 10—July 18
Voroshilovgrad, Ukrainian S.S.R.	48° 35'	39° 20'	Apr. 5	n.a.	June 13	June 5—June 15	...do...	July 8—July 18
Khorol, Ukrainian S.S.R.	49° 48'	33° 15'	Apr. 15	Apr. 10—Apr. 19	June 15	June 10—June 19	...do...	July 9—July 19
Sinelnikovo, Ukrainian S.S.R.	48° 21'	35° 26'	n.a.	n.a.	...do...	n.a.	July 15	July 8—July 19
Drabov, Ukrainian S.S.R.	49° 57'	32° 19'	Apr. 15	Apr. 10—Apr. 20	...do...	June 10—June 20	July 16	July 6—July 20
Adzanka, Ukrainian S.S.R.	48° 34'	32° 24'	Apr. 14	Apr. 13—Apr. 15	...do...	...do...	July 17	July 10—July 30
Belaya Tserkov, Ukrainian S.S.R.	49° 47'	30° 09'	Apr. 21	Apr. 17—Apr. 25	June 18	June 10—June 29	...do...	July 6—July 20
*Odessa, Ukrainian S.S.R.	46° 29'	30° 44'	Apr. 9	Mar. 25—May 2	June 14	June 7—June 26	July 18	July 11—July 27
Nemerchi, Ukrainian S.S.R.	48° 40'	27° 45'	n.a.	—	June 12	June 5—June 15	July 18	July 15—July 25
Sumy, Ukrainian S.S.R.	50° 53'	34° 43'	Apr. 20	Apr. 10—Apr. 30	June 18	June 15—June 25	July 21	July 18—July 25
*Saratov, R.S.F.S.R.	51° 32'	46° 01'	Apr. 23	Apr. 8—May 6	...do...	June 2—July 1	...do...	June 29—Aug. 2
Kamenets-Podolsk, Ukrainian S.S.R.	48° 40'	26° 34'	n.a.	—	n.a.	—	July 22	July 10—July 29
*Krasnyy Kut, R.S.F.S.R.	50° 58'	46° 30'	Apr. 21	Apr. 12—May 6	June 15	May 30—June 29	...do...	July 4—Aug. 3
Yershov, R.S.F.S.R.	51° 20'	48° 17'	May 2	Apr. 29—May 4	June 20	June 16—June 24	...do...	July 17—July 27
*Ploty, Moldavian S.S.R.	47° 57'	29° 10'	Apr. 2	Mar. 20—Apr. 24	June 17	June 7—June 30	July 24	July 17—Aug. 6
Solyanka, R.S.F.S.R.	51° 30'	50° 05'	Apr. 30	Apr. 25—May 4	June 22	June 18—June 25	...do...	July 22—July 27
*Kharkov, Ukrainian S.S.R.	49° 58'	36° 09'	Apr. 15	n.a.	June 18	June 11—June 30	July 25	July 3—Aug. 4
Temir, Kazakh S.S.R.	49° 06'	57° 10'	Apr. 30	Apr. 18—May 11	n.a.	—	...do...	July 15—Aug. 14
Ural'sk, R.S.F.S.R.	51° 12'	51° 21'	May 3	Apr. 24—May 12	June 24	June 17—July 2	July 26	July 14—Aug. 7
*Poltava, Ukrainian S.S.R.	49° 35'	34° 34'	Apr. 27	Apr. 14—May 5	June 20	June 14—June 25	July 27	July 19—July 30
Balashov, R.S.F.S.R.	51° 33'	43° 09'	Apr. 30	n.a.	June 22	June 21—June 23	July 28	July 25—Aug. 1
*Stavropol, R.S.F.S.R.	45° 02'	41° 54'	Apr. 19	Mar. 11—May 18	June 23	June 13—July 8	July 30	July 20—Aug. 10
*Bezenchuk, R.S.F.S.R.	53° 00'	49° 28'	Apr. 26	Apr. 21—Apr. 29	June 27	June 20—July 2	...do...	July 20—Aug. 8
Kuybyshev, R.S.F.S.R.	53° 12'	50° 09'	Apr. 19	Apr. 11—Apr. 27	...do...	June 26—June 28	...do...	July 25—Aug. 3
Voronezh, R.S.F.S.R.	51° 40'	39° 13'	Apr. 16	Apr. 2—Apr. 30	June 20	June 17—June 24	July 31	July 29—Aug. 2
Chishmy, R.S.F.S.R.	54° 34'	55° 23'	Apr. 28	Apr. 10—May 13	June 30	June 14—July 12	Aug. 2	July 13—Sept. 10
Taimenka, R.S.F.S.R.	53° 48'	83° 34'	May 6	Apr. 29—May 14	n.a.	—	Aug. 4	Aug. 2—Aug. 7
Balandino, R.S.F.S.R.	54° 05'	91° 27'	May 5	Apr. 26—May 15	n.a.	—	Aug. 8	Aug. 4—Aug. 12
Argayash, R.S.F.S.R.	55° 29'	60° 52'	May 12	May 5—May 23	n.a.	—	Aug. 11	Aug. 5—Aug. 18

*Berezniki, R.S.F.S.R.
Kuybyshev, R.S.F.S.R.
Novosibirsk, R.S.F.S.R.

Talmenka, R.S.F.S.R.	53° 48'	83° 34'	May 6	Apr. 29—May 14	n.a.	—	Aug. 4	Aug. 2—Aug. 7
Balandino, R.S.F.S.R.	54° 05'	91° 27'	May 5	Apr. 26—May 15	n.a.	—	Aug. 8	Aug. 4—Aug. 12
Argayash, R.S.F.S.R.	55° 29'	60° 52'	May 12	May 5—May 20	n.a.	—	...do...	Aug. 4—Aug. 13
*Chakino, R.S.F.S.R.	52° 14'	41° 38'	May 2	Apr. 23—May 11	June 23	June 20—June 27	Aug. 9	July 29—Aug. 22
Shatilov, R.S.F.S.R.	53° 00'	37° 23'	Apr. 20	Apr. 10—Apr. 30	June 20	June 12—June 27	Aug. 10	July 26—Aug. 25
*Ust-Kamenogorsk, Kazakh S.S.R.	49° 45'	82° 41'	Apr. 26	Apr. 20—May 3	n.a.	—	Aug. 11	Aug. 9—Aug. 13
Novo-Urensk, R.S.F.S.R.	54° 25'	48° 11'	May 5	Apr. 16—May 24	July 3	June 21—July 15	...do...	July 12—Sept. 9
Moscow, R.S.F.S.R.	55° 50'	37° 33'	May 2	n.a.	n.a.	—	...do...	n.a.
Prokopyevsk, R.S.F.S.R.	53° 50'	86° 49'	May 7	Apr. 29—May 15	n.a.	—	Aug. 12	Aug. 6—Aug. 17
Tyukalinsk, R.S.F.S.R.	55° 52'	72° 12'	May 11	Apr. 29—May 24	n.a.	—	...do...	Aug. 8—Aug. 16
Zmeinogorsk, R.S.F.S.R.	51° 09'	82° 12'	May 8	May 4—May 13	July 13	July 8—July 18	Aug. 14	Aug. 9—Aug. 18
Sverdlovsk, R.S.F.S.R.	56° 50'	60° 38'	May 9	May 8—May 10	July 5	n.a.	Aug. 15	Aug. 5—Aug. 26
Tikhvin, R.S.F.S.R.	59° 40'	34° 15'	May 1	n.a.	July 11	n.a.	...do...	n.a.
*Biysk, R.S.F.S.R.	52° 32'	85° 16'	May 5	May 3—May 7	(2)	—	Aug. 16	Aug. 12—Aug. 19
Novo-Nazyvayevka, R.S.F.S.R.	55° 34'	71° 24'	May 15	May 6—May 24	n.a.	—	...do...	Aug. 7—Aug. 24
*Barnaul, R.S.F.S.R.	53° 20'	83° 48'	May 8	May 4—May 16	(2)	—	Aug. 17	Aug. 9—Aug. 21
*Tomsk, R.S.F.S.R.	56° 26'	84° 58'	May 10	May 3—May 16	July 7	July 6—July 10	...do...	Aug. 10—Aug. 22
Gorkiy, R.S.F.S.R.	56° 19'	44° 00'	n.a.	—	July 3	June 25—July 12	...do...	Aug. 7—Aug. 27
Minusinsk, R.S.F.S.R.	53° 43'	91° 40'	May 8	Apr. 30—May 17	n.a.	—	Aug. 18	Aug. 6—Aug. 29
Chelyabinsk, R.S.F.S.R.	55° 10'	61° 24'	May 13	May 13—May 14	July 16	July 14—July 18	...do...	Aug. 19—Aug. 20
Sretensk, R.S.F.S.R.	52° 15'	117° 43'	May 1	n.a.	July 15	July 11—July 19	Aug. 20	Aug. 18—Sept. 1
*Stalinsk, R.S.F.S.R.	53° 46'	87° 11'	May 10	May 5—May 15	July 12	July 10—July 14	...do...	Aug. 13—Aug. 27
Gatchina, R.S.F.S.R.	59° 34'	30° 07'	May 1	n.a.	July 9	n.a.	Aug. 21	n.a.
Bayanday, R.S.F.S.R.	53° 03'	105° 35'	May 15	Apr. 30—May 23	July 17	July 8—July 20	Aug. 22	Aug. 10—Aug. 30
Kupino, R.S.F.S.R.	54° 10'	77° 15'	May 20	Apr. 29—June 10	July 26	July 15—July 30	Aug. 23	Aug. 12—Sept. 5
*Omsk, R.S.F.S.R.	54° 58'	73° 20'	May 12	Apr. 30—May 22	July 13	July 6—July 25	...do...	Aug. 10—Sept. 12
Volosovo, R.S.F.S.R.	59° 26'	29° 29'	Apr. 23	n.a.	July 10	n.a.	...do...	n.a.
Moskalenki, R.S.F.S.R.	54° 49'	71° 46'	May 20	May 14—May 27	n.a.	—	Aug. 24	Aug. 16—Sept. 2
Okoneshnikovo, R.S.F.S.R.	54° 50'	75° 04'	May 16	May 9—May 23	n.a.	—	...do...	Aug. 11—Sept. 5
Kirillov, R.S.F.S.R.	59° 52'	38° 23'	May 11	n.a.	July 7	n.a.	Aug. 26	n.a.
Shadrinsk, R.S.F.S.R.	56° 05'	63° 38'	May 16	May 6—May 27	n.a.	—	Aug. 27	Aug. 22—Oct. 1
Tulun, R.S.F.S.R.	54° 36'	100° 36'	May 18	n.a.	n.a.	—	Aug. 28	n.a.
Molotov, R.S.F.S.R.	58° 01'	56° 16'	May 24	May 17—May 26	July 15	July 6—July 21	...do...	Aug. 18—Sept. 11
Novosibirsk, R.S.F.S.R.	55° 02'	82° 53'	May 10	May 4—May 16	n.a.	—	...do...	Aug. 20—Sept. 4
Podporozhye, R.S.F.S.R.	60° 40'	34° 30'	May 13	n.a.	July 6	n.a.	...do...	n.a.
Irkutsk, R.S.F.S.R.	52° 17'	104° 18'	May 11	Apr. 21—May 31	July 14	July 8—July 20	Aug. 31	Aug. 15—Sept. 16
Yalutorovsk, R.S.F.S.R.	56° 41'	66° 20'	May 23	May 15—May 31	n.a.	—	Sept. 1	Aug. 24—Sept. 8
*Petrodvorsk, R.S.F.S.R.	59° 53'	29° 54'	May 21	May 15—May 30	July 10	July 1—July 20	Sept. 2	Aug. 26—Sept. 26
Birkinskiy, R.S.F.S.R.	54° 05'	103° 29'	May 28	May 12—June 12	July 21	July 10—Aug. 3	Sept. 5	Aug. 24—Sept. 16
Vilgort, R.S.F.S.R.	61° 38'	50° 46'	May 21	May 21—May 21	July 24	July 19—Aug. 7	Sept. 12	Sept. 3—Sept. 22

Source: Based on data as shown in Tables 96 to 115 incl., and on additional data of agricultural experiment stations in the Soviet Union between 1898 and 1952, with average of 5 years for each station.

*Indicates stations for which day-degrees have been computed. See Tables 96 to 115 incl.

† Data for local varieties of wheat.

* Not computed because of small number of cases.

n.a.—not available.

Table 4

Approximate Seeding and Harvesting Dates for Cereals
in Specified Districts of the USSR 5/

<u>Specified District a/</u>	<u>Seeding Season</u>		<u>Harvesting Season</u>	
	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>
<u>European USSR</u>				
Chief Wheat Surplus Area				
South Ukraine (III)	15 Mar	20 Apr	15 Jul	25 Jul
Lower Don-North Caucasus (IV)	20 Mar	15 May	15 Jul	30 Jul
Lower Volga (VI)	1 Apr	5 May	20 Jul	5 Aug
Middle Volga (VI)	20 Apr	15 May	10 Aug	30 Aug
Bashkir ASSR (VIII)	10 Apr	20 May	20 Aug	10 Sep
Chief Rye Surplus Area				
West and North Ukraine (III)	20 Mar	1 May	20 Jul	10 Aug
Black Soil Belt (VII)	20 Mar	15 May	30 Jul	15 Aug
Northern Deficit Area				
Belorussian SSR (IIb)	10 Apr	20 May	15 Aug	5 Oct
Central Industrial Concentra- tion (VII)	10 Apr	20 May	20 Aug	10 Sep
Tatar ASSR (VI)	10 Apr	20 May	20 Aug	20 Sep
Baltic States and North- western (IIa and Ia)	15 Apr	10 Jun	20 Aug	10 Sep
Northern European USSR (Ib)	10 Apr	10 Jun	1 Sep	20 Sep
<u>Asiatic USSR</u>				
Spring Wheat Surplus Belt				
Urals East of the Ural Mountains (VIII and IX)	10 Apr	10 Jun	20 Aug	15 Sep
West Siberia, Southern Part (IX)	10 Apr	10 Jun	20 Aug	15 Sep
Kazakh SSR, Northern Part (Xa)	10 Apr	10 Jun	25 Aug	N.A.
Central Asia				
Uzbek SSR (Xb)	b/	b/	b/	b/
Kirgiz SSR (Xb)	1 Apr	20 May	30 Jul	N.A.
Transcaucasus (V)	b/	b/	b/	b/

a. The numerals in parentheses refer to the Economic Regions shown on the maps following p. 18.

b. The acreage seeded, if any, is negligible.

- 14 -

S-E-C-R-E-T